**DOUBLING AND HALVING**

*To multiply a number by four, we double it twice*:

**16 × 4** double once = 32

double twice = 64

*To multiply a number by eight, we double it three times:*

**13 × 8** double once = 26

double twice = 52

double three times = 104

*We can use the double and halve strategy to get to an easy multiplication fact*.

**15 × 18** Double 15 and halve 18

**30 × 9** This is an easier fact to work with.

**= 270**

**SPLIT STRATEGY**

**13 × 25**

10 3 Split one of the numbers.

(10 × 25) + (3 × 25) Work out the brackets.

250 + 75 = 325 Add the answers together.

**COMPENSATION STRATEGY**

When multiplying we can round to an easier number and then *adjust* or *compensate*.

Look how we do this with **29 × 4**

29 is close to 30. We can do 30 × 4 in our heads: **30 × 4 = 120**

We have to take off 4 because we used one group of 4 too many: 120 – (1 × 4) = 116

**4 × 29 = 116**

**INVERSE OPERATION**

As we know, multiplication and division are *inverse operations*. **8 × 9 = 72**

This means they do the reverse of each other: **72 ÷ 9 = 8**

We can use our knowledge of the times tables to help us answer division questions.